

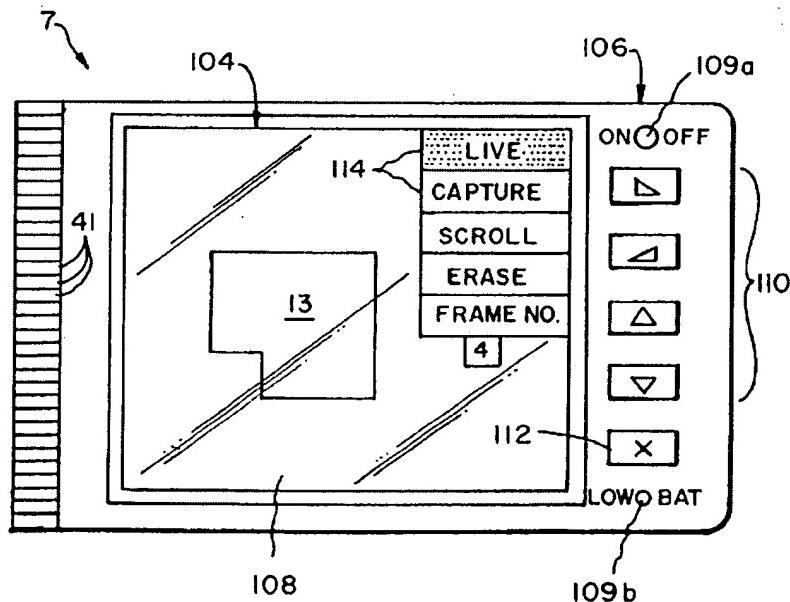
REMARKS**I. Status**

Claims 9-14, 30-33, and 36-42 are pending. Claims 30, 40, and 41 are amended. It is believed that no new matter has been added.

II. Rejections Under 35 U.S.C. § 103

Claims 30-33 and 36-40 were rejected under 35 U.S.C. §103(a) as being unpatentable over No (U.S. Patent No. 6,587,140) (hereinafter referred to as “the No reference”) in view of Zelno et al. (U.S. Patent No. 5,989,051) (hereinafter referred to as “the Zelno reference”). Claims 9-14 and 41-42 were rejected under 35 U.S.C. §103(a) as being unpatentable over No and Zelno, and further in view of Hirst et al. (U.S. Patent No. 5,930,553) (hereinafter referred to as “the Hirst reference”).

Claim 30 recites a “single continuous cable,” with the “printer controller disposed entirely within the single continuous cable.” See also claim 40 (“means disposed entirely within the single continuous cable for generating print engine ready data from the print controller ready data”). In rejecting claims 30 and 40, the Office Action states that the No reference discloses a printer controller incorporated within a PC card 7. Fig. 3 of the No reference, illustrating the PC card 7, is reproduced below:

**FIG. 3**

As shown in Fig. 3 of the No reference, and discussed further in the specification, PC card 7 includes a user interface 106 with manual controls, LEDs, and a screen. Col. 5, lines 8-16.

The Office Action acknowledges that the No reference fails to teach or suggest a PC card (that includes a printer controller) disposed within a single continuous cable. The Office Action further states that the Zelno reference teaches a PC card disposed within a single continuous cable. The Office Action thus concludes that it would have been obvious to place PC Card 7 from the No reference within the single continuous cable of the Zelno reference, thereby teaching all of the limitations of claims 30 and 40.

Applicants believe that the rejection is not well-founded because: (1) there is no suggestion to combine the No and Zelno references; and (2) even if combined, the Zelno and No references fail to teach the invention. First, the combination of No and Zelno references is not proper since the combination would render the No reference unsatisfactory for its stated purpose. The No reference teaches that the PC card 7 includes a user interface with manual controls, LEDs, and a screen. The No reference further teaches that these items in the user interface are for the specific purpose of providing information to and receiving information from the user. Specifically, the user presses the manual buttons, views the LEDs, and views the screen. To dispose the PC card 7 entirely within a cable (and prevent any interaction between the user and the PC card 7) is directly contrary to the stated purpose of PC card 7. Therefore, the combination of the No and Zelno references is not proper.

Second, even if the Zelno and No references were combined, the combination still fails to teach “the printer controller program stored in a memory consisting of volatile memory” as recited in claim 38. See also claim 41 (“means for automatically managing download of the printer controller program to a memory consisting of the volatile memory.”) The Office Action, in rejecting claim 38, cites “EEPROM 96, col. 4, lines 39-42” as teaching the memory that stores the printer control program. Thus, according to the Office Action, EEPROM 96 is a volatile memory. Applicants respectfully disagree. It is well understood and known that an EEPROM is, by definition, a non-volatile memory. Using a non-volatile memory to store the printer controller program as recited in claim 38 may simplify the cable and may enable dynamic updating of the printer controller program within the cable. Therefore, independent claims 30 and 40,

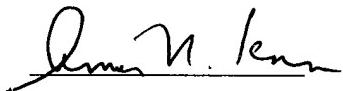
dependent claims 38 and 41, and each of the remaining dependent claims are patentable for at least the reasons provided above.

III. Summary

It is respectfully asserted that the claims properly define the invention and that the invention is both novel and non-obvious. Allowance of the present claims is earnestly solicited.

Should the Examiner wish to discuss any of the above submissions in more detail, the Examiner is requested to please contact the undersigned at the telephone number listed below.

Respectfully submitted,



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